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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,474	11/16/2001	Stuart Lawson	GJ-225J	1719

7590 03/11/2005
Iandiorio & Teska
260 Bear Hill Road
Waltham, MA 02451-1018

EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,474

Applicant(s)

LAWSON, STUART

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16 - 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16 - 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

This office action is responsive to amendment filed 12/20/2004.

Claims 16 – 20 are pending.

1. The amendment filed 12/20/2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: a suction chamber positioned between the valve plate and the cylinder head. The added material has been incorporated into claims, specification and the drawing.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. Amended drawing was received on 12/20/2004. The amended drawing is disapproved for reason(s) set forth above.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 11 – 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure as originally filed does not provide support for the claimed "a suction chamber positioned between the valve plate and the cylinder head".

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-213077 or by Becker et al. (US 5,275,541).

The document JP 10-213077 (equivalent to US 6,116,866) discloses a valve assembly for a pump, comprising a cylinder head (1), port (2) disposed in a valve plate (4), the port being opened and closed by a reed and comprising a tube (8) attached to the valve plate (4), extending vertically into a suction gas chamber that is in communication with the port (2) extending vertically above the port (2) on a side of the port remote from the reed, and the tube (8) being of such a size that, in the use of the valve assembly, the tube contains a column of fluid. A suction chamber is considered inherent to the valve assembly of JP 10-213077 and is regarded as the chamber in which the tube (8) is disposed.

To one of ordinary skill in the art it is clear that the length of the tube (8) is at least several times (certainly more than twice) the diameter of the port (2) and thus has a column of fluid against which the reed in port (2) has to operate. The fluid in tube (8) is a real fluid that has viscosity and thus to one of ordinary skill in the art, it is an inherent feature that the column exerts a damping effect (via friction) on the motion of the reed. Thus, to one of ordinary skill in the art, the tube (8) is inherently a damping means that serves to provide substantial mechanical damping of the motion of the reed.

Becker et al. (US 5,275,541) discloses (Fig. 1 for example) a valve assembly of a fluid pump (1) comprising a port (23) disposed in a valve plate (4), the port being opened and closed by a reed (25) and comprising a tube (21) that is attached to the valve plate (4), the tube being in communication with the port (23), extending vertically above the port (23) into a suction chamber (20), on a side of the port remote from the reed, the tube (21) being of such a size that, in the use of the valve assembly, the tube contains a column of fluid.

To one of ordinary skill in the art it is clear that the length of the tube (21a) is at least several times (certainly more than twice) the diameter of the port (24a) and thus has a column of fluid against which the reed in port (24a) has to operate. The fluid in tube (21a) is a real fluid that has viscosity and thus to one of ordinary skill in the art, it is an inherent feature that the column exerts a damping effect (via friction) on the motion of the reed. Thus, to one of ordinary skill in the art, the tube (21a) is inherently a damping means that serves to provide substantial mechanical damping of the motion of the reed.

Response to Arguments

Applicant's arguments filed 12/20/2004 have been fully considered but they are not persuasive. Applicant is essentially arguing that neither of the applied references discloses a cylinder head and a suction gas chamber provided between the cylinder head and the valve plate. In response, it is noted that as set forth above, the feature of a suction gas chamber provided between the cylinder head and the valve plate is not supported by the disclosure as originally filed. The disclosure as originally filed merely

recites a cylinder head comprising a valve plate. No other structural details are given. As for a suction chamber, it is clearly shown in Becker et al. and is considered inherent to Tomita et al. being taken here to a chamber in which the tube (8) is disposed. As for Exhibit A included in the Applicant's response, it is not clear as to how a plan view (view from above) is relevant to conclude that the length of the port shown in Fig. 1 of Becker et al. is insufficient to constitute a tube. Also, the source of Exhibit A is unclear i.e. it is not shown in the cited patent to Becker et al.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

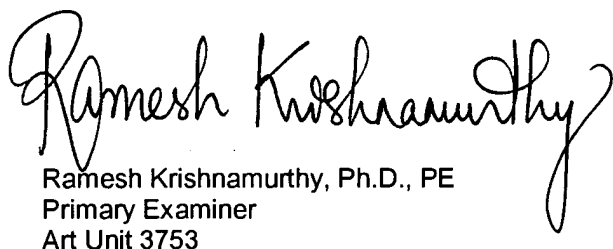
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene L. Mancene, can be reached on (571) 272 – 4930. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 – 9306.

Art Unit: 3753

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramesh Krishnamurthy, Ph.D., PE
Primary Examiner
Art Unit 3753